

AMENDMENTS TO THE CLAIMS

In the Claims:

Please cancel Claim 8 without prejudice. Please amend Claims 1-7 and 9-11. A complete copy of the claims including marked-up versions of each claim which is amended in this Amendment Appears below.

- 1 1. (Currently Amended) A system for filtering processing reflected infrared signals
2 which are used to control the flow of water from a water faucet or the like, said system
3 comprising:

4 an IR transmitting device for transmitting an IR signal toward a location proximate
5 the place from which water may be dispensed from the faucet;

6 an IR receiving device having a detection range and an output for receiving a
7 reflected IR signal from a detection range proximate the location from which water may
8 be dispensed from the faucet, said IR receiving device providing an output signal, said
9 output indicative of at least one IR detection value; signal being proportional to the
10 magnitude of the reflected IR signal; and

11 control logic configured to receive a plurality of IR detection values, said output
12 signal from said IR receiving device, wherein the said control logic compares said at least
13 one IR detection value output signal with an activation threshold to detect determine the
14 presence of an object within said detection range, said control logic further configured to

15 detect the occurrence of motion within said detection range, said control logic providing a
16 water control signal which may be used to control the flow of water through the faucet
17 based upon the results of the determination of the presence of an object within the
18 detection range and the occurrence of motion within said detection range.

1 2. (Currently Amended) A system ~~for filtering reflected infrared signals as claimed~~
2 ~~in claim 1, defined in Claim 1,~~ said system further comprising a ~~fluid dispensing device~~,
3 ~~wherein said at least one IR detection value is a plurality of IR detection values and water~~
4 ~~control valve~~ wherein said control logic is configured to activate ~~said fluid dispensing~~
5 ~~device when one of said plurality of IR detection values exceeds the activation threshold.~~
6 ~~the water control valve when either the presence of an object within the detection range is~~
7 ~~determined or the occurrence of motion within said detection range is determined.~~

1 3. (Currently Amended) A system as ~~claimed in claim 2 defined in Claim 2~~, wherein
2 said control logic is further configured to execute a timer for a predetermined time
3 interval when said ~~fluid dispensing device~~ water control valve is activated, and to
4 deactivate ~~the fluid dispensing device~~ said water control valve when ~~the~~ said timer
5 expires or when ~~said one IR detection value is less than the activation threshold.~~ the
6 presence of an object within the detection range is no longer determined.

1 4. (Currently Amended) A system as ~~claimed in claim 3~~ defined in Claim 3, wherein
2 said control logic is configured to detect an increase in ~~at least one of said plurality of IR~~
3 ~~detection values~~ said output signal from said IR receiving device and activate ~~said fluid~~
4 ~~dispensing device~~. the water control valve in response thereto.

1 5. (Currently Amended) A system ~~for filtering reflected infrared signals~~ as claimed
2 ~~in claim 1 as defined in Claim 1, further comprising a~~ wherein said IR transmitting device
3 that periodically emits IR pulses, and wherein said IR receiving device is positioned to
4 detect reflections of said IR pulses from said IR transmitting device.

1 6. (Currently Amended) A system ~~for filtering reflected infrared signals~~ as claimed
2 ~~in claim 1 as defined in Claim 1,~~ wherein said control logic detects motion by calculating
3 the difference between consecutive ~~IR detection values, samples of said output signal~~
4 from said IR receiving device and comparing said difference to the said activation
5 threshold.

1 7. (Currently Amended) A method for ~~filtering processing~~ reflected infrared signals
2 which are used to control the flow of water from a water faucet or the like, said method
3 comprising the steps of:

4 transmitting an IR signal from an IR transmitting device toward a location
5 proximate the place from which water may be dispensed from the faucet;
6 receiving a reflected IR signal with an IR receiving device from a detection range
7 proximate the place from which water may be dispensed from the faucet, said IR
8 receiving device providing an output signal which is proportional to the magnitude of the
9 reflected IR signal;
10 comparing an IR detection value said output signal from said IR receiving device
11 to an activation threshold to determine the presence of an object within said detection
12 range;
13 detecting the occurrence of motion within a said detection range; and
14 controlling a fluid dispensing device the flow of water through the faucet based
15 upon the results of said comparing and detecting steps.

1 8. (Cancelled)

1 9. (Currently Amended) A method for filtering reflected infrared signals as claimed
2 ~~in claim 8 as defined in Claim 7, wherein said controlling step includes comprises~~
3 ~~activating the fluid-dispensing device when the IR detection value exceeds the activation~~
4 ~~threshold. the water control valve when either the presence of an object within the~~

5 detection range is determined or the occurrence of motion within said detection range is
6 determined.

1 10. (Currently Amended) A method for filtering reflected infrared signals as claimed
2 in claim 9, as defined in Claim 9, said method further comprising the steps of:

3 setting a timer for a predetermined interval upon activation of the water control
4 valve;

5 detecting the presence or absence of motion during the said predetermined
6 interval; and

7 deactivating the fluid dispensing device water control valve when the said
8 predetermined time interval expires or when the IR detection level is less than the
9 activation threshold. the water control valve when either the presence of an object within
10 the detection range is determined or the occurrence of motion within said detection range
11 is determined.

1 11. (Currently Amended) A method for filtering reflected infrared signals as claimed
2 in claim 10, as defined in Claim 10, said method further comprising the steps of:
3 sensing IR detection values; detecting the presence or absence of an increase in
4 said output signal from said IR receiving device; and

5 activating the ~~fluid dispensing device when an increase in IR detection is sensed.~~
6 the water control valve in response to an increase in said output signal from said IR
7 receiving device.